



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,710	01/06/2006	John H. Redding	21046-00050-US1	5792
30678 7590 08/19/2008 CONNOLLY BOVE LODGE & HUTZ LLP 1875 EYE STREET, N.W. SUITE 1100 WASHINGTON, DC 20036				
EXAMINER MCGOWAN, JAMIE LOUISE				
ART UNIT 3671		PAPER NUMBER		
MAIL DATE 08/19/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/542,710

Applicant(s)

REDDING, JOHN H.

Examiner

JAMIE L. MCGOWAN

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 7/20/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Sills (5,607,289) (cited by applicant).

Regarding claim 1, Sills discloses an apparatus comprising:

- A body (39) having a bottom face (underside of body 39) and comprising an outlet flow (duct around propeller 20 – see arrows 33) path in which is mounted a thrust means (20) to direct, in use, a wash of water downwards towards an area of sea or river bed or the like
- Orientation means (25, 51, 54, 56) to connect said apparatus to a support means (50 of Figure 6)
- A support means (50) to orientate said apparatus with respect to the sea or river bed (the apparatus can be placed on the sea bed through the umbilical connection 51)
- At least one inlet flow path (38) through which water is supplied, in use, to the thrust means (20)
- Characterized in that the inlet flow path (38) and outlet flow path (duct portion at 15) are provided with respective openings in the bottom face of the body (39)
- Wherein at least a portion of the outlet flow path comprises a duct (see figure 3)
- And the thrust means (20) comprises a propeller mounted within the duct

Regarding claim 2, Sills discloses that the inlet and outlet flow paths are parallel but of opposite directions (Figure 3).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sills (5,607,289) (cited by applicant) in view of Weinrib (4,914,841) (cited by applicant).

While Sills discloses the invention as described above, it fails to disclose that the duct is formed with an outlet in the undersurface of a central section of the body. Like Sills, Weinrib also discloses an underwater sediment excavator. Unlike Sills, Weinrib further discloses a duct formed with an outlet in the undersurface of a central section of the body. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a duct for the outlet flow of water in Sills as taught by Weinrib as a known technique to improve similar devices in a similar way.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sills (5,607,289) (cited by applicant) in view of Jones (4,364,409)

While Sills discloses the invention as described above, it fails to specifically disclose that there is an adjustable flow regulator adjacent the inlet of the inlet flow path. Like Sills, Jones also discloses a flow system with an inlet and an outlet. Unlike Sills, Jones further discloses that it is known in the art to use an adjustable flow regulator to control

the amount of fluid that flows through the inlet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the adjustable flow regulator of Jones in the device of Sills so as to control the amount of fluid flowing through the inlet so as to run the machine more efficiently by controlling the pressure at which water runs through the outlet.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sills (5,607,289) (cited by applicant) in view of Jones (4,364,409) as applied to claims 1 and 4 above, and further in view of Kreuttner (2,974,680).

While the combination of Sills and Jones discloses the invention as described above, it fails to specifically disclose that the regulator includes a louver assembly. Like the combination of Sills and Jones, Kreuttner also discloses an adjustable flow regulator. Unlike the combination, Kreuttner further discloses that it is known in the art of flow regulators to use louvers in order to further control the fluid flow through a duct. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include louvers with the flow regulator as taught by Kreuttner to provide the operator with even greater control of the outlet flow of the fluid thereby making the sediment management more efficient.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sills (5,607,289) (cited by applicant) in view of Beaumont (6,125,560) (cited by applicant).

While Sills discloses the device as described above, it fails to disclose that the body has an angled face at at least one of the leading and trailing edges thereof. Like Sills, Beaumont also discloses an underwater sediment excavator. Unlike Sills, Beaumont further discloses that the body of the excavator can have an angled leading and trailing edge. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the body of the excavator of Sills with an angled face at either the trailing or leading edge of the body as taught by Beaumont as a simple

Art Unit: 3671

substitution of a known element (body with angled faces) for another (body without angled faces) that would yield predictable results.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE L. MCGOWAN whose telephone number is (571)272-5064. The examiner can normally be reached on Monday through Friday 8:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on (571)272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas B Will/
Supervisory Patent Examiner
Art Unit 3671

JLM
August 18, 2008

